

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021601**Date Inspected:** 02-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Xu Le Feng.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 10

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Bike Path. The weld designations reviewed are as follows.

BK008A6-002-001, 002, 165, 007

BK008A8-002-001, 002, 130, 007

NDT Notification No-08426

This QA received ZPMC inspection notification sheet 08433 to perform dimensional inspection of Bike path Traveler Tail (TR) identified as 3005TR2. Dimensional inspections performed on this traveler rail include, but is not limited to overall length, beam sweep, flange tilt and flange warpage. The results of the inspection were recorded on Caltrans (CT) QA form OBG DCP Hand Measurements survey: Traveler Rails and submitted to CT QA lead for review and further action.

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This QA Inspector observed the following work in progress:

BAY 10:

SAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 207745 Perform Submerged Arc Welding (SAW) on OBG Bike path. Joint identified as BK014A1-001-009. ZPMC CWI Identified as QC Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2221-L2c-S-2. For more information see attached picture number 1.

Heat Straightening:

This QA Inspector observed ZPMC personnel performing Heat Straightening on OBG Bike path deck plate using hand torch, Bike path identified as BK009A1-001. Maximum deformation observed is about 18mm. ZPMC QC Identified as Lijun with temporary heat straightening report HSR1-B-10129.

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040365 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK15A-001-013. ZPMC QC Identified as Yun Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U4c. For more information see attached picture number 2.

This QA Inspector observed ZPMC qualified welding personnel identified as 044511 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path. Joint identified as BK008A6-001-009, 011, 154, 155. ZPMC QC Identified as Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112.

This QA Inspector observed ZPMC qualified welding personnel identified as 052493 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike path. Joint identified as BK008A8-001-004, 121, 006, 123. ZPMC QC Identified as Lijun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112.

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040302 Perform Flux Core Arc Welding (FCAW) on OBG Bike path sole plate. Joint identified as BK009A1-001-058, 059. ZPMC CWI Identified as Guo Yan Fei. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-ESAB.

SMAW Process Repair welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 057220 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever Beam. Joint identified as BK15A-001-030. ZPMC QC Identified as Yun Chang Fang with temporary welding repair report WRR-B-WR20216. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G (2F) Repair.

BAY 11, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 046769, 044541, 066155 Perform

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Shielded Metal Arc Welding (SMAW) on OBG Traveler Rail. Joint identified as 20TR2-034-013, 015, 017. ZPMC QC Identified as Wang Chang Xin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 202338 Perform Shielded Metal Arc Welding (SMAW) on OBG Traveler Rail. Joint identified as 20TR2-035-013. ZPMC QC Identified as Wang Chang Xin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-Tc-U5b.

Green Tagging

This QA inspector performed Visual Inspection for Green Tagging which were previously tested and accepted by ZPMC Quality Control personnel Mr. Xu Le Feng and ABF QA personnel Mr. Zhao Xian He. The members are identified as OBG Bike Path BK008A-002. The green Tag number is identified as # 13789.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer